

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004212**Date Inspected:** 22-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower & OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Bay 1:

The QA Inspector randomly observed a ZPMC magnetic drill operator drilling bolt holes in OBG U-Rib connection plates.

The QA Inspector randomly observed a ZPMC NDT Technician Bo Tin Rui, utilizing the MT Method to examine 100% of the GMAW 2F tack welds attaching U-Ribs to Deck Plate DP200-001. The tack welds were examined while AW-DP200-001 was in negative camber on Gantry 1 Jig. The QA Inspector observed the ZPMC NDT Technician marking the locations of 5 Linear Indications (LI) on WJ 010, 1 LI on WJ 009 and 2 LI on WJ 008.

The QA Inspector randomly observed ZPMC welder Dong Yiqun 059450, utilizing the Flux Cored Arc Welding (FCAW) Process in the 3F (Vertical Fillet) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2133, to fit up and tack weld internal diaphragms to U-Ribs for Deck Plate DP308-001 at WJ's 007, 008, 009. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Sun Wei, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Wang Jun 067752, utilizing the FCAW Process in the 3F (Vertical Fillet) Position with ZPMC WPS WPS-B-T-2233-TC-U4b-F, to fit up and tack weld the splice between

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

U-Rib Sections U-246 and U-296 for Deck Plate DP536-001 at WJ 194. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Sun Wei, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Jiang Shuang Chen ID 201788/Song Yin Shu ID 059421 (WJ's 003/004) and Wang Xiao Rong ID 059445/Zhang Shanhui ID 059403 (WJ's 005/006), utilizing the Gas Metal Arc Welding (GMAW) Process in the 2G (Flat Groove) Position with ZPMC WPS WPS-B-T-2342-U1(U-Rib)-4, to weld the root pass in WJ's 003/004 and 005/006 attaching U-Ribs U-214 and U-216 to Deck Plate DP335-001. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Sun Wei, monitoring weld parameters. The QA Inspector also randomly observed weld parameters and recorded them as follows: 378/365 amps, 30.9/31.2 volts for WJ's 003/004; 373/375 amps, 31.9/31.1 volts for WJ's 005/006 with a travel speed of 633 millimeters per minute for all the above listed WJ's. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

OBG Bay 2:

The QA Inspector observed no contract work being performed in this bay.

OBG Bay 3:

The QA Inspector randomly observed ZPMC welder Xiao Lin ID 049485, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-2112-FCM, to tack weld I-Ribs to Side Plate SP162-001 WJ's 018/017 and 022/021. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Chen Chih Chian, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

OBG Bay 4:

The QA Inspector randomly observed ZPMC welder Yang Gencheng ID 066418, utilizing the SMAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-3312-TC-P5 to tack weld Web Plate piece mark p416 to 23M (N) Bottom Tower Diaphragm SA238 at WJ's NSD1-SA333B/B-1/2, 5/6 and WPS-B-T-3313-TC-P5 in the 3G position to tack weld Web p416 to Web p337 at WJ's NSD1-SA333B/B-13/14. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Wu Ming Kai monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Wright,Mark	QA Reviewer
